

Patent Claims

1 1. Regulating device for a hydraulic system by which a valve (3) controlling a
2 consumer can be controlled or regulated, wherein a bus (1) and bus interfaces (4) are arranged
3 between a job computer (2) and the valve (3), wherein at least one sensor (5), whose signal is to
4 be taken into account in controlling or regulating the consumer, is associated with the consumer,
5 characterized in that an autonomous controlling and regulating element (10) is arranged between
6 the bus (1) and the valve (3), this autonomous controlling and regulating element (10) being
7 outfitted with a bus interface (4), a microcontroller (11) connected to the latter, and at least one
8 analog-to-digital converter (12) to which the at least one sensor (5), which is an analog sensor
9 (5), can be connected.

1 2. Regulating device according to claim 1, characterized in that the controlling and
2 regulating element (10) is structurally combined with the valve (3).

1 3. Regulating device according to claim 2, characterized in that every valve (3) is outfitted
2 with a plug-in unit (20) by which the controlling and regulating element (10) can be connected to
3 the bus (1) and to sensors (5) and a power supply.

1 4. Regulating device according to claim 3, characterized in that the plug-in unit (20)
2 comprises two identical plug-in connection configurations(21), each of which contains a
3 connection to the bus (1), to the power supply, and to at least one sensor (5).

1 5. Regulating device according to claim 4, characterized in that every plug-in connection
2 configuration (21) is outfitted with six contacts (22), two of which serve for the connection of
3 analog sensors (5).

1 6. Regulating device according to claim 5, characterized in that a two-conductor sensor
2 can be connected to the two contacts (22) for the connection of the analog sensors (5).

1 7. Regulating device according to claim 5, characterized in that two sensors (5) which are
2 connected to ground GND on one side can be connected to the two contacts (22) for the
3 connection of analog sensors (5).

1 8. Regulating device according to claim 4, characterized in that an analog transmitter (24)
2 can be connected to two contacts (22) of one of the plug-in connection configurations (21) of the
3 plug-in unit (20).